CMA U.S. Army Chemical Materials Agency
(Provisional)

PROGRESS UPDATE

Aberdeen Chemical Agent Disposal Facility

(as of August 31, 2003)

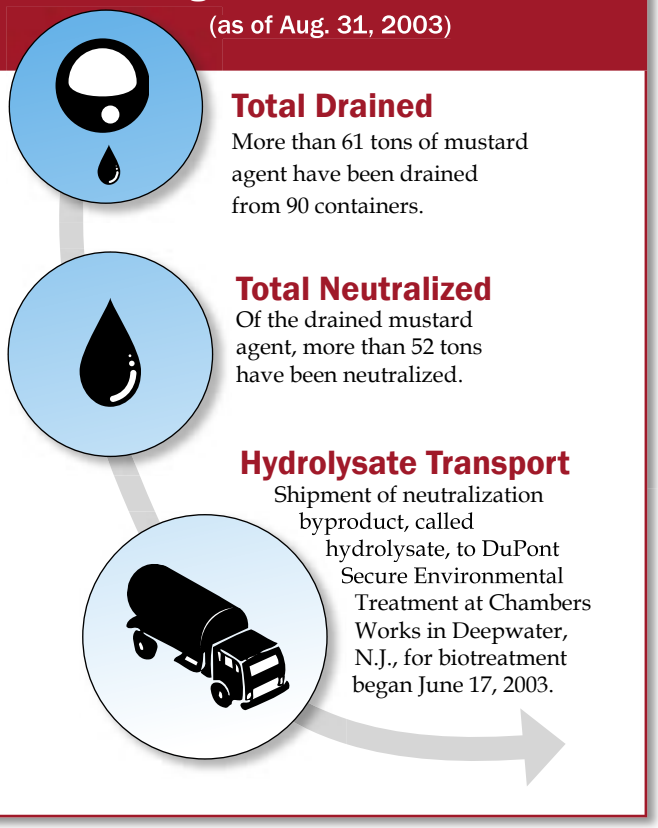
Where We Are

- **TOTAL DRAINED –** As of Aug. 31, workers at the Aberdeen Chemical Agent Disposal Facility at Aberdeen Proving Ground, Md., have drained more than 61 tons of liquid mustard agent from 90 containers. Of that amount, more than 52 tons of mustard agent have been neutralized.

- **HYDROLYSATE –** The byproduct of mustard agent neutralization is called hydrolysate — a muddy-looking liquid that is approximately 90 percent water with a mixture of salts, an organic chemical called thiodiglycol, and possible minute traces of impurities (organic compounds and metals, such as copper, iron, etc.). Hydrolysate does not contain mustard agent. On June 17, we shipped our first tanker truck of hydrolysate to the DuPont Secure Environmental Treatment facility in Deepwater, N.J. We temporarily stopped making shipments at the end of June after determining that one of the on-site storage tanks of hydrolysate had a higher pH level than earlier batches. This required us to make a few changes to documentation. We hosted public meetings in July to notify community members about these changes and to let them know that DuPont Secure Environmental Treatment representatives assured us they could biotreat this higher-pH byproduct safely and effectively. Shipments resumed Aug. 7; as of Aug. 31, 94 truckloads of hydrolysate had been shipped to DuPont, totaling 435,600 gallons.

"At a glance – ABCDF stats"

(as of Aug. 31, 2003)



- **TON CONTAINER CLEANOUT FACILITY –** Work continues on the facility that will clean the drained mustard agent containers. The ton container cleanout process is expected to begin in October. In this robotic facility, the empty containers will be cut in half and decontaminated to what is known as the "3X" level, which means it has been surface decontaminated to show no residual contamination as indicated by air monitoring. From there, the containers will be shipped to another Army installation for final decontamination to the "5X" level using a thermal treatment process. The containers then will be melted down and the steel recycled.

- **MANAGEMENT –** On Aug. 4, Bechtel Aberdeen, systems contractor for the ABCDF, welcomed Joseph Nemec as its new project manager. As a 21-year veteran with Bechtel, Mr. Nemec brings impressive and valuable experience to the team. He understands the dynamics of operating plants and, having handled several complex projects with very tough safety and environmental challenges, recognizes the paramount importance of safety and environmental protection. Lee Smith, the departing project manager, served on the project for more than 20 months and oversaw the major change in project direction following the terrorist attacks of 9/11. Having been tasked by the Army to find ways to accelerate the destruction of the mustard agent, he led the Bechtel Aberdeen team through a highly compressed redesign and construction effort, saw to the hiring and training of a plant operations team, certified the neutralization facility as operationally ready, and initiated the processing of live mustard agent on April 23, 2003.

PROGRESS UPDATE

Challenges We're Facing

- **CARBON FILTER DRUM INCIDENT -** On Aug. 16, a carbon filter drum venting the rinse water storage tank inside the neutralization bay overheated and began emitting smoke, triggering smoke alarms. Workers masked and evacuated the building. The facility's ventilation system automatically shut down, as designed, to prevent oxygen from feeding any fire present. Monitors indicated agent vapor remained confined to the neutralization bay and adjacent rooms. The drum was cooled by remotely feeding it with nitrogen and subsequently has been removed from the neutralization bay.

  Officials investigating the incident have determined that the smoke in the neutralization bay of the ABCDF apparently was caused by a reaction in a carbon drum attached to a vent line. Initial findings are that the smoking began when the carbon interacted with a caustic material in the lines. The caustic was used to rinse out dithiane crystals that were forming in and clogging pipes for the vent condenser. Bechtel is working with industry experts in the use of carbon to develop a plan to prevent this from happening again. In addition to ensuring caustic doesn't interact with the carbon, the system will be modified to enable early detection of heat in the carbon drums, and will include a nitrogen purge capability that can be added to extinguish and cool the drum if there is a reoccurrence. The formation of the crystals will be remedied by changing the pumps on the reactors and rinse water tank from air-sealed to double mechanical sealed pumps.

- **TON CONTAINER DECONTAMINATION –** The ramp-up of the ABCDF has been slower than anticipated due to the difficulty of decontaminating the exterior end of each container after it has been drained. Decades of paint build-up on the ton containers, coupled with the background contamination from the drain stations and the extremely low levels of agent to which the monitors are set to detect, have led to delays in clearing the containers after draining. We are in the process of developing a new method to clear the containers in a timely manner.

- **SCHEDULE IMPACT –** While promptly disposing of the stockpile is our mission, we will not compromise safety. We will not restart operations at the ABCDF until each of these challenges has been resolved. We hope to be partially operational in October 2003, processing agent using two reactors with new pumps and one upgraded drain station. Once the facility is fully operational, disposal efforts are expected to be complete by early spring 2004, still more than 18 months ahead of the original schedule.

Where We'll Be

- **"Back to School" Nights:** The outreach team will set up and staff information booths on
  - **Sept. 11** at Deerfield Elementary School, 6:30 p.m.
  - **Sept. 18** at Edgewood Middle School, 6:45 p.m.
  - **Sept. 25** at Edgewood Elementary School, 7 p.m.

- **Sept. 13, Abingdon Family Fun Day:** The outreach team will set up and staff an information booth at the Abingdon Family Fun Day from 10 a.m. - 4 p.m.

- **Sept. 17, Bel Air Rotary Club:** Lt. Col. Gerald Gladney, Commander of the U.S. Army Edgewood Chemical Activity and Aberdeen Chemical Agent Disposal Facility, will provide Rotary Club members with a project overview and status update on Sept. 17, 12 p.m. at the Maryland Golf and Country Club.

- **Sept. 21, Essex Day:** The outreach team will set up and staff an information booth at the Essex Day Festival in Baltimore County from 10 a.m. - 6 p.m.

- **Oct. 1, RACES (Kent County Ham Radio Club):** The outreach team, in coordination with Kent County Emergency Management Agency's Sue Willits, will provide RACES members with a project overview and status update on Oct. 1, 7 p.m. at the Kent County Emergency Operations Center.

- **Oct. 15, Harford County Local Emergency Planning Council (LEPC):** An ABCDF project status update will be given to members of the LEPC on Oct. 15, 3 p.m. at the Harford County Emergency Operations Center.

For more information, contact the Edgewood Chemical Stockpile Outreach Office, (410) 676-6800; the Aberdeen Chemical Agent Disposal Facility Public Affairs Office, (410) 436-5253; or the Bechtel Aberdeen Public Outreach Office, (410) 436-9507.